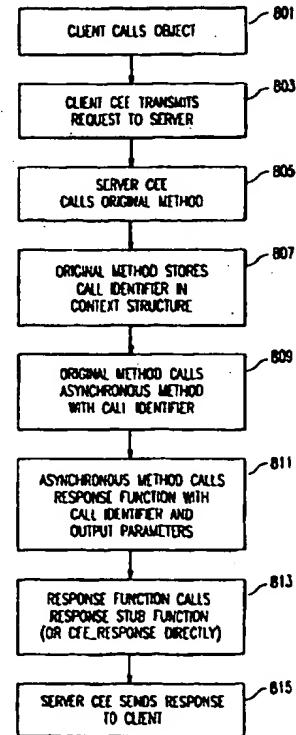




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<p>(21) International Application Number: PCT/US97/11879 (22) International Filing Date: 10 July 1997 (10.07.97) (30) Priority Data: 08/680,202 11 July 1996 (11.07.96) US</p> <p>(71) Applicant: TANDEM COMPUTERS INCORPORATED (US/US); 10435 N. Tantau Avenue, LOC. 200-16, Cupertino, CA 95014 (US).</p> <p>(72) Inventor: SCHOFIELD, Andrew; Lindenbuchl 27, CH-6330 Cham (CH).</p> <p>(74) Agents: GRANATELLI, Lawrence, W. et al.; Graham & James LLP, 600 Hansen Way, Palo Alto, CA 94304 (US).</p>		<p>(81) Designated States: JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>
<p>(54) Title: METHOD AND APPARATUS FOR ASYNCHRONOUSLY CALLING AND IMPLEMENTING OBJECTS</p> <p>(57) Abstract</p> <p>A method and apparatus for asynchronously calling and implementing objects is disclosed. Object calls to perform an operation are performed asynchronously by calling the appropriate stub function from the client application and passing in the object reference, input parameters, and a pointer to a completion routine. The object reference, input parameters, and completion routine address are provided to a client-side execution environment. The client-side execution environment stores the completion routine address and transmits the input parameters to a server-side execution environment. The server-side execution environment calls a method in the server application that implements the requested operation. The server application performs the requested operation. Once the call has been responded to, the client-side execution environment calls the completion routine and passes it the output parameters to the requested operation. The client application can continue performing other asynchronous operations before the completion routine is called. To asynchronously implement an object that has been called, the appropriate method function in the server application is called which, in turn, calls an asynchronous operation. Once the asynchronous operation returns, the application responds to the client application.</p>		



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